

## PATENT COOPERATION TREATY

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From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

To:

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WRITTEN OPINION  
(PCT Rule 66)

Date of mailing  
(day/month/year)

18.12.2003

Applicant's or agent's file reference  
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REPLY DUE

within 3 month(s)  
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27.01.2003

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21.02.2002

International Patent Classification (IPC) or both national classification and IPC  
H04Q7/38

Applicant  
MOTOROLA INC et al

1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
  - I ☒ Basis of the opinion
  - II ☐ Priority
  - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - IV ☐ Lack of unity of invention
  - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - VI ☐ Certain documents cited
  - VII ☐ Certain defects in the international application
  - VIII ☐ Certain observations on the international application
3. The applicant is hereby **invited to reply** to this opinion.
 

**When?** See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

**How?** By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

**Also:** For an additional opportunity to submit amendments, see Rule 66.4.  
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.  
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 21.06.2004

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Amn 18 Mar 2004

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preliminary examining authority:



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**I. Basis of the opinion**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*):

**Description, Pages**

1-21 as originally filed

**Claims, Numbers**

1-34 as originally filed

**Drawings, Sheets**

1/3-3/3 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

6. Additional observations, if necessary:

**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	1-3,15-16,26,27
Inventive step (IS)	Claims	4-14,17-25,28-34
Industrial applicability (IA)	Claims	

**2. Citations and explanations****see separate sheet**

Reference is made to the following documents:

- D1: US-A-5 857 153 (LUPIEN FRANCIS) 5 January 1999 (1999-01-05)
- D2: WO 97 32445 A (ERICSSON TELEFON AB L M) 4 September 1997
- D3: US-A-5 991 622 (HENRY JR RAYMOND C) 23 November 1999

**Concerning Item V**

**Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. The present application does not meet the requirements of Article 33(1) PCT, because the subject-matter of **independent claims 1, 15, 26 and 27** is **not new** in the sense of Article 33(2) PCT.
  - 1.1 **D1**, which is considered to be the closest prior art, discloses, according to the features of **claim 1**, a **method of selecting carriers** to be measured by a subscriber unit (*mobile station*) served by a cellular communication system (cf. abstract and fig. 1: *800-MHZ cellular telephone hyperband; 1900-MHZ PCS hyperband*) and operable to measure carriers in a frequency band (col. 6, lines 42-47) , the method comprising the steps of:
    - **determining** a *measuring performance characteristic* of the subscriber unit related to the measurement performance of the subscriber unit when measuring carriers in the frequency band (implicit defined in col.6, lines 49-55: *"mobile stations that are dual-hyperband capable receive.... Mobile stations that operate only in the 800-MHZ cellular telephone hyperband receive..."* implies the determination of the *performance characteristic* of the subscriber unit); and
    - **selecting** a subset of carriers in the frequency band to be measured by the subscriber unit in response to the *measuring performance characteristic* (col. 6, lines 49-55: *mobile stations* receive different lists including certain neighbor cells depending on whether they are dual-hyperband or not).

The subject-matter of **claim 1** is accordingly **not new** (Article 33(2) PCT).

- 1.2 The same reasoning as for **claim 1** applies to **independent claims 15 and 27**, which respectively define an **apparatus**, a **cellular communication system** and a subscriber unit for carrying out the **method** according to **claim 1** (in case of

**claim 27**, the additional feature of *means for measuring the carriers* is also disclosed in **D1**; cf. ref. to **claim 2** under paragraph 3 below).

As a consequence, the subject-matter of **claims 15, 26 and 27** lacks **novelty** over **D1** (Article 33(2) PCT).

- 1.3 Furthermore, even if it is argued that the apparatus defined in **claims 1, 15, 26 and 27** is new based on minor differences in the interpretation of the features as claimed in these claims and those disclosed in **D1**, the subject-matter of **claim 1** would certainly not involve an inventive step (Article 33(3) PCT), as document **D1** discloses the *same object* and the *same type of solution* as the present application, i.e. to **optimize the carrier selection** for the carrier measurement by **providing each subscriber unit with a subset of carriers dependent on its performance characteristic**.

In **D1**, in the same manner as in the present application, different carrier lists are sent to the mobile stations depending on their characteristics: "*mobile stations that are dual-hyperband capable receive a list of carriers including neighbor cells and outer cells operating at both 800 MHz and 1900 MHz. Mobile stations that operate only in the 800-MHz cellular telephone hyperband receive a neighbor list that includes only neighbor cells and outer cells operating at 800-MHz.*" (col. 6, lines 50-55).

2. For the sake of completeness, the applicant's attention is drawn to the documents **D2 and D3**, which are also considered relevant to be taken in combination with document **D1** to argue the lack of inventive step of the claimed invention.

Document **D2** discloses a method and apparatus for adaptively reconfiguring a neighbor cell list in a cellular system. Figure 8 shows a process in which the mobile station characteristics are used when generating a neighbor cell list for a selected mobile station within a selected cell (cf. pages 33-35).

Document **D3** discloses a system in which the mobile station also performs measurement of carriers on the basis of a carrier list received from the base station.

3. **Dependent claims 2-14, 16-25 and 28-34** do not appear to contain any additional

5. In case the applicant files amended documents, he should also consider the following clarity objections/matters:

- 5.1 **Independent claim 26** does not meet the requirements of Article 6 PCT taken in combination with Rule 6.3(b) PCT since it does not **clearly define the scope of monopoly** for which protection is sought.

This **independent claim neither contains the essential features** which are necessary to carry out the invention **nor defines any technical feature** relating to the cellular communication system to which the claims is directed.

According to Rule 6.3(b) PCT, every independent claim should clearly specify all of the essential features needed to define the invention and should not seek to replace the essential features by reference to another claim (cf. also Section IV, III-4.1, -4.2 and -4.4).

- 5.2 The application does not meet the requirements of Article 6 PCT, because **claims 4-5, 17-18 and 28-29** are not clear.

The description defines that the *measuring performance characteristic* is indicative of the time required to measure **or** of the number of receivers (cf. page 5, lines 24-31). If, however, **claims 5, 18 and 29** are read as being dependent on **claim 4, 17 and 28** respectively, then it appears that the *measuring performance characteristic* is **indicative** of the two situations simultaneously. These claim dependencies should therefore be revised.

- 5.3 Some of the features in **apparatus claim 15** (lines 5 and 8), **claim 16** (line 11) and **claim 27** (lines 24, 27 and 29) are formulated in terms which correspond to a method (e.g. "*means for determining*") rather than clearly defining the apparatus in terms of its technical features (e.g. "*means adapted/arranged to determine*").

6. Furthermore, the following formal comments and/or objections should be taken into account by the applicant when filing amended documents:

- 6.1 **Independent claims** are not in the **two-part form** in accordance with Rule 6.3(b)

PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document **D1**) being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).

- 6.2 All features of the claims should be provided with **reference signs** placed in parentheses (Rule 6.2(b) PCT).
- 6.3 According to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents **D1 and D2** should be mentioned in the description.
7. The applicant should give care to avoid giving rise to further objections by the **inadvertent addition of subject-matter** (Article 34(2)(b) PCT) and at the same time **bring the description into conformity with the amended claims** (Rule 5.1(a)(iii) PCT).
8. In order to facilitate the examination of the conformity of the amended application with the requirements of Article 34(2)(b) PCT, the applicant is requested **to clearly identify the amendments carried out**, no matter whether they concern amendments by addition, replacement or deletion, and **to indicate the passages of the application as filed on which these amendments are based** (see also Rule 66.8(a) PCT).